

Docket No.: 4918-0104PUS1
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Yasurnasa YOSHITOMI et al.

Application No.: 10/551,640

Confirmation No.: 5472

Filed: September 29, 2005

Art Unit: 1773

For: PROTECTIVE FILM FOR POLARIZING
PLATES

Examiner: S. Ahmed

DECLARATION UNDER 37 CFR 1.132

Commissioner for Patents
P.O. Box 1450
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Sir:

I, Mr. Tadao NISHIKAGE, declare the following.

I am knowledgeable in Japanese and English.

The following paragraph appears at page 10, line 18 bridging to page 11, line 5 of the PCT/JP2004/004222 which is the priority parent application:

このようにして、熱可塑性フィルムの少なくとも片面に波長550nmでの反射率が0.5%以下の反射防止層が形成される。そしてこの本発明の偏光板保護フィルムは、面積100cm²のフィルム面内でランダムに選択した10点において、波長λにおける反射率R(λ)を求め、波長380～780nmの領域で関係式(1)

$$S = \sum_{\lambda=380}^{780} \Delta\lambda \cdot R(\lambda) \cdots (1)$$

(なお、関係式(1)は、波長 λ を380 nmから780 nmまで1 nmずつ増やしたときの波長 λ における反射率R(λ)と反射率の測定波長間隔 $\Delta\lambda$ (=1 nm)との積の総和である。)

に従って算出されるSの値の標準偏差が0.3以下である。この標準偏差が0.3よりも大きいと、フィルム面内の分光反射率のばらつきが大きくなり、その結果、該偏光板保護フィルムを用いて偏光板を作製し、液晶表示装置に実装した場合、輝度分布や色差分布がばらつき、画面のゆらぎやちらつき、色むらなどが生じる。この標準偏差は、好ましくは0.1以下、より好ましくは0.05以下である。

I believe that the above-paragraph has the following English translation:

"The antireflection layer having a reflectance of 0.5% or smaller at the wavelength of 550 nm is formed at least on one face of the thermoplastic film as described above. The protective film for polarizing plates of the present invention has a standard deviation of S of 0.3 or smaller. The standard deviation of S is obtained by obtaining the reflectance R(λ) at a wavelength λ in the region of wavelength of 380 to 780 nm while the wavelength λ is successively increased by an increment $\Delta\lambda$ of 1 nm from 380 nm to 780 nm, calculating S in accordance with relation (1):

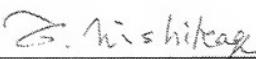
$$S = \sum_{\lambda=380}^{780} \Delta\lambda \cdot R(\lambda) \quad \cdots (1)$$

which gives the sum of products of the reflectance R(λ) at the wavelength of λ and the increment of the wavelength between two successive measurements of the reflectance $\Delta\lambda$ (=1 nm), and calculating the standard deviation of S obtained at 10 points randomly selected within an area of 100 cm² on the surface of the film. When the standard deviation exceeds 0.3, the fluctuation of the spectral reflectance within the surface of the film increases. As the result, the distribution of luminance and the distribution of color difference become uneven, and images show fluctuation, flicker and uneven distribution of color when a polarizing plate is prepared by using the obtained protective film for polarizing plates and mounted to a liquid crystal display device. It is preferable that the standard deviation is 0.1 or smaller and more preferably 0.05 or smaller."

All statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true. Further, these statements were made with the

knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Signed this 25 day of December, 2007



Signature of Mr. Tadao NISHIKAGE